



**Governor's Water Augmentation, Innovation, and Conservation Council**

# **Desalination Committee**

**Chair: Henry Day**

March 25, 2021 | 10:00am – noon

# Webinar Logistics

- Please state your name when speaking.
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# Welcome



# Agenda

1. Welcome – Henry Day
2. Review - Draft Summary & Comments – Scott Miller
3. Next Steps
4. Adjournment



# *Review - Draft Summary & Comments*



An aerial photograph of a large industrial facility, likely a power plant and water treatment plant, situated in a dry, brown landscape. The facility features several large, rectangular water treatment tanks in the upper right, a central area with multiple cooling towers emitting white steam, and various other industrial buildings and piping. The surrounding terrain is arid with sparse vegetation and some distant green fields.

# GWAICC Legal and Regulatory Subcommittee Meeting Summary

**Scott Miller**

**Arizona Public Service Company**

**March 25, 2021**



# Background

- The Legal and Regulatory Subcommittee of the Governor's Water Augmentation, Innovation, and Conservation Council's Desalination Committee was tasked to identify the legal and regulatory barriers to the increased use of brackish, or poor quality, groundwater supplies in Arizona. The subcommittee meeting was held on October 18, 2019.
- To be clear, there are no legal or regulatory constraints specific to the use of brackish or poor-quality groundwater in Arizona law. Brackish or poor-quality groundwater is not specifically defined in Arizona statute.
- Most of the legal and regulatory barriers to the increased use of brackish groundwater that were identified by the subcommittee, are, in fact, limitations to the use and transportation of groundwater.

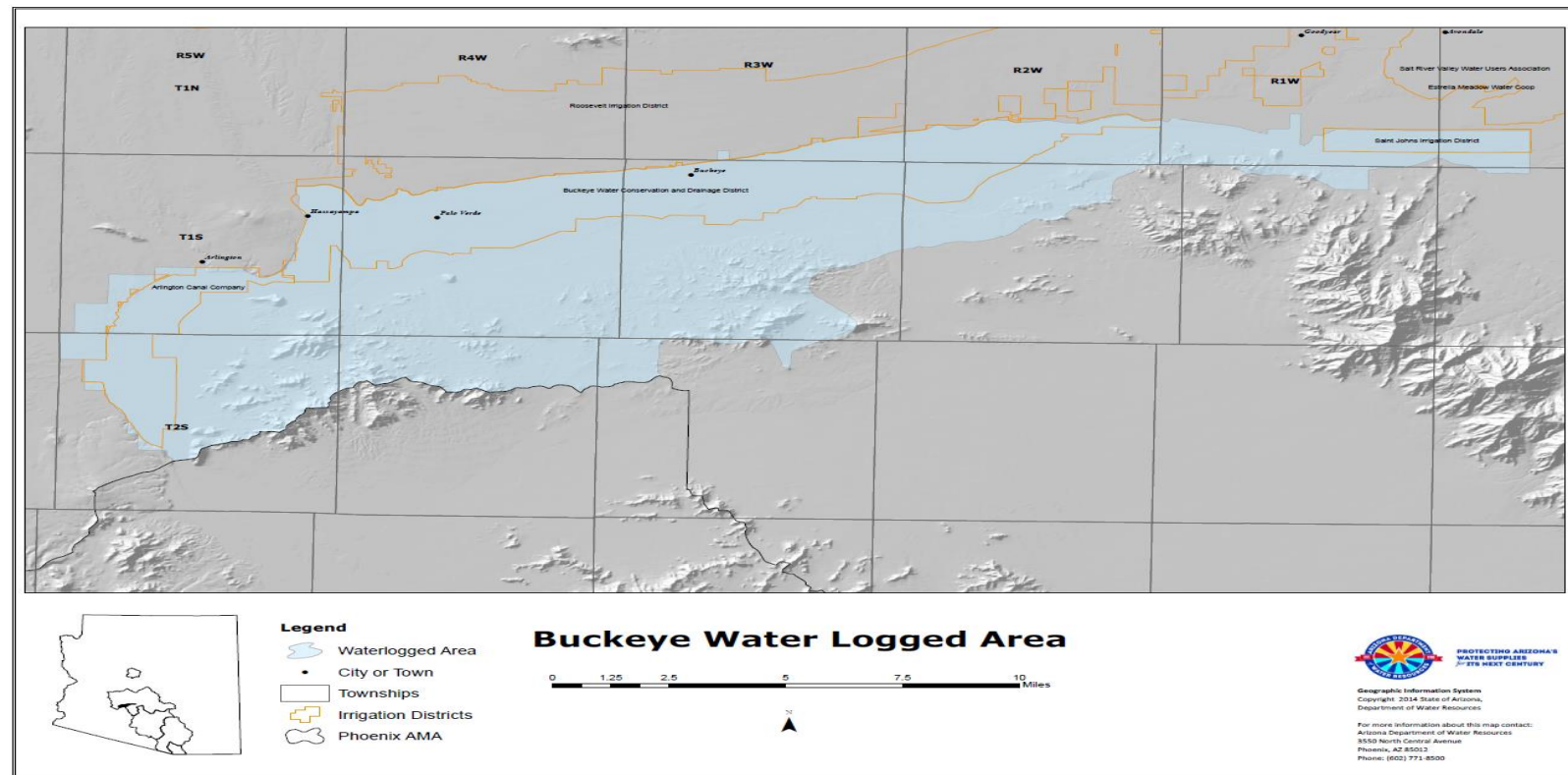
# Exceptions for the Use of Poor-Quality Groundwater

- There are two sections within the Code that reference the use of “poor quality” groundwater, enabling the use of groundwater beyond what would otherwise be allowable within the AMAs, with significant limitations.
- A.R.S. § 45-132 prohibits filling or re-filling bodies of water for landscape, scenic or recreational purposes; however, a person can apply to the director for a permit to use poor quality groundwater for that purpose and A.R.S. § 45-516 also allows for the issuance of poor-quality groundwater withdrawal permits



# Buckeye Waterlogged Area

- The subcommittee focused considerable discussion on an area in the Phoenix AMA commonly known as the Buckeye Waterlogged Area (BWLA). Within this area, because of the shallow depth to water, irrigators have historically dewatered in order to sustain agricultural activities.



# Limitations to Groundwater Transportation

- The Arizona Groundwater Transportation Act of 1991, with certain amendments, is in effect today. The Act prohibits the transportation of groundwater to another basin or sub-basin, or from an area outside an AMA to an AMA, unless specifically authorized.
- Exceptions for the transportation of groundwater from a basin outside of an AMA into an AMA:
  - **McMullen Valley Groundwater Basin into the Phoenix AMA**
  - **Butler Valley Groundwater Basin into any AMA**
  - **Harquahala INA into any AMA**
  - **Big Chino Sub-Basin of Verde River Groundwater Basin into the Prescott AMA**

# Aquifer Protection

- Arizona law classifies all aquifers in the state as drinking water aquifers and prohibits the degradation of the water quality of those aquifers. This effectively prohibits the use of deep well injection for the disposal of waste streams from desalination of poor-quality groundwater supplies. **Deep well injection currently requires both an Underground Injection Control (UIC) permit from the U.S. Environmental Protection Agency (EPA) and an APP from ADEQ.**
- To date, Arizona providers exploring options for the disposal of waste streams from brackish groundwater desalination have not identified potential locations suitable for deep well injection, nor have they identified it as a cost-effective option. The *Long-Term Water Augmentation Options for Arizona* report noted several issues to address in preparation for future deep well injection of brine:
  - ADEQ will need to work with stakeholders to develop standards, protocols, and best management practices that applicants can use to develop a permitting process that is in compliance with the Arizona Aquifer Protection Program (APP).
  - ADWR will need to work with stakeholders to develop and/or modify, as appropriate, injection well construction and testing standards.
  - Arizona stakeholders should participate in the Environmental Protection Agency's (EPA) underground injection control (UIC) primacy stakeholder process and ensure that implementation of a combined APP/UIC program provides for deep brine injection under appropriate conditions.

# Discussion Points of the Sub Committee

**The subcommittee discussed means and desirability of enabling additional groundwater use by leveraging or expanding the exemptions for waterlogging and poor-quality groundwater permits and removing limitations imposed by the Groundwater Code or transport statutes.**

- Expanding exemptions for groundwater use or incentivizing use of groundwater supplies conflicts with the purpose of the Groundwater Management Act and with the charge of the Post-2025 AMAs Committee and the Non-AMAs Groundwater Committee, both of which are tasked to address challenges to sustainable groundwater management.
- Poor quality water is no less valuable than potable water. Targeting this water as less valuable, or as if it is available to someone else, is not a good path forward. The issue is sustainability; not what community we can take water from.
- If water is withdrawn in any large quantity, in excess of what is already used, it will affect another user's physical availability. Brackish groundwater is still groundwater, and it is already relied upon.
- Under current state law, does the brackishness of this groundwater mean it is available for exploitation from anyone who would want to take it? Additional pumping in the area could lower water levels, forcing the current users to deepen their wells, creating economic hardship.

# Questions

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# Next Steps





# Questions

# Contact Information

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